



Indiana State Department of Health

Epidemiology Resource Center

Quick Facts

About...Botulism

What is botulism?

Botulism (boch-uh-liz-uhm) is a rare disease caused by a nerve toxin produced by the *Clostridium botulinum* bacteria, which lives in the soil and grows best with little to no oxygen. These bacteria can survive in harsh environments. On average, one case of botulism is reported in Indiana every two years.

How is botulism spread?

Botulism is not spread from person to person. There are three types of botulism:

- Foodborne botulism results from eating foods, especially improperly home-canned foods that contain the botulism toxin.
- Intestinal botulism (formerly infant botulism) results from eating certain foods such as honey or natural syrups that contain spores of botulism bacteria. These spores grow in the body producing toxin in babies and people with gastrointestinal disorders.
- Wound botulism results from wounds becoming contaminated with *Clostridium botulinum* spores.

Who is at risk for botulism?

Foodborne botulism can affect anyone who eats food containing the toxin. Infant botulism almost exclusively affects children under one year of age, but can rarely affect adults. Wound botulism, though rare, can affect anyone.

How do I know if I have botulism?

A person with symptoms affecting eyesight or speech should seek medical attention immediately. Other illnesses can produce symptoms that look like botulism. The health care provider may order tests to rule out other diseases and may collect a

stool or blood sample. Tests will not always come back positive for a person with botulism.

What are the symptoms of botulism?

Botulism symptoms get worse fast. Symptoms of botulism begin within 12 to 36 hours (range of 6 hours to 10 days) after consuming contaminated food or after a wound have become infected with the bacteria. Symptoms include:

- Diarrhea
- Vomiting
- Constipation
- Urinary retention
- Double vision or blurred vision
- Drooping eyelids
- Difficulty speaking or swallowing
- Dry mouth
- Muscle weakness
- Descending paralysis (muscle paralysis that begins in the upper body and progresses downward)
- Muscle paralysis on both sides of the body at the same time

Babies with botulism appear tired, do not feed well, are constipated, and have a weak cry and limp muscles.

How can botulism be treated?

Care in a hospital is the main treatment for all forms of botulism. If the disease is found early, botulism antitoxin may be used as treatment. While the antitoxin keeps the illness from becoming worse, it does not speed recovery. Antitoxin is rarely used to treat babies with botulism. The antitoxin can cause severe allergic reactions in some patients so the health care provider must rule out other possibilities for the illness before giving antitoxin.

People can die from botulism if symptoms lead to breathing failure and infection in the lungs. Death occurs in 5-10% of cases. Someone with severe botulism may need assistance from a breathing machine and medical attention for several months. The paralysis will slowly improve after several weeks and the person may experience tiredness and shortness of breath for several years.

How is botulism prevented?

Foodborne botulism:

- All home-canned foods must be properly processed and prepared.
- All home-canned foods should be boiled for at least 10 minutes before eating to destroy any bacterial toxin.
- Never eat foods from cans or jars that are bulging, discolored, have a bad taste or smell, or swollen lids or caps.
- Potatoes cooked wrapped in aluminum foil should be kept hot until they are eaten or refrigerated. If stored overnight, remove foil before refrigerating.

- Any oils containing garlic or herbs should be refrigerated.
- Outbreaks have been associated with uneviscerated fish, fermented fish, and improperly processed foods such as sautéed onions, chili peppers, and canned chili.

Intestinal botulism:

- Do not feed honey to babies less than 12 months of age. Honey can contain spores that will easily grow in infants.

Wound botulism:

- Carefully clean and disinfect all cuts and wounds. See a health care provider if a wound becomes infected.
- Do not use injectable street drugs.

All information presented is intended for public use. For more information, please refer to the Centers for Disease Control and Prevention website on botulism: <http://www.cdc.gov/nczved/divisions/dfbmd/diseases/botulism/>

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